

Amendments to the Claims:

Claims 1-21. (Cancelled)

22. (Currently amended) A wheat plant comprising the herbicide resistance characteristics of the plant with American Type Culture Collection (ATCC) Patent Deposit Designation Number PTA-4257, wherein the wheat plant is selected from the group consisting of:

- (a) ~~the a~~ wheat plant ~~has an~~ having ATCC Patent Deposit Designation Number PTA-4257;
- (b) ~~the a~~ wheat plant that is a recombinant or genetically engineered derivative of the plant with ATCC Patent Deposit Designation Number PTA-4257;
- (c) ~~the a~~ wheat plant that is any progeny of the plant with ATCC Patent Deposit Designation Number PTA-4257; ~~or~~
- (d) a wheat plant comprising a polynucleotide as defined in SEQ ID NO:3;
- (e) a wheat plant comprising a polynucleotide encoding a polypeptide as defined in SEQ ID NO:4;
- (f) a wheat plant comprising a polypeptide as defined in SEQ ID NO:4; and
- (dg) ~~the a~~ wheat plant that is a progeny of any of the plants of (a) through (ef).

23. (Previously presented) The wheat plant of claim 22, wherein the imidazolinone herbicide is selected from the group consisting of 2-(4-isopropyl-4-methyl-5-oxo-2-imidazolin-2-yl)-nicotinic acid, 2-(4-isopropyl)-4-methyl-5-oxo-2-imidazolin-2-yl)-3-quinolinecarboxylic acid, 5-ethyl-2-(4-isopropyl-4-methyl-5-oxo-2-imidazolin-2-yl)-nicotinic acid, 2-(4-isopropyl-4-methyl-5-oxo-2-imidazolin-2-yl)-5-(methoxymethyl)-nicotinic acid, 2-(4-isopropyl-4-methyl-5-oxo-2-imidazolin-2-yl)-5-methylnicotinic acid, and a mixture of methyl 6-(4-isopropyl-4-methyl-5-oxo-2-imidazolin-2-yl)-m-toluate and methyl 2-(4-isopropyl-4-methyl-5-oxo-2-imidazolin-2-yl)-p-toluate.

24. (Previously presented) The wheat plant of claim 22, wherein the imidazolinone herbicide is 5-ethyl-2-(4-isopropyl-4-methyl-5-oxo-2-imidazolin-2-yl)-nicotinic acid.

25. (Previously presented) The wheat plant of claim 22, wherein the imidazolinone herbicide is 2-(4-isopropyl-4-methyl-5-oxo-2-imidazolin-2-yl)-5-(methoxymethyl)-nicotinic acid.

26. (Previously presented) A plant part of the wheat plant of claim 22.

27. (Previously presented) A plant cell of the wheat plant of claim 22.

Claims 28-57. (Cancelled)

58. (Previously presented) A seed produced by the wheat plant of claim 22, wherein the seed comprises the herbicide resistance characteristics of the plant with ATCC Patent Deposit Designation Number PTA-4257.

59. (Previously presented) The seed of claim 58, wherein the seed is true breeding for an increased resistance to an imidazolinone herbicide as compared to a wild type variety of the wheat plant seed.

Claims 60-61. (Cancelled)

New claims based on pending claims 4-7, and 11-14

62. (New) The wheat plant of claim 22, the plant further comprises a *Triticum aestivum* IMI nucleic acid selected from the group consisting of an Imi1 nucleic acid and an Imi2 nucleic acid.

63. (New) The wheat plant of claim 62, wherein the *Triticum aestivum* IMI nucleic acid encodes an IMI polypeptide comprising a mutation in a conserved amino acid sequence selected from the group consisting of a Domain A, a Domain B, a Domain C, a Domain D and a Domain E.

64. (New) The wheat plant of claim 63, wherein the conserved amino acid sequence is a Domain E.

65. (New) The wheat plant of claim 64, wherein the mutation results in a serine to asparagine substitution as compared to a wild-type AHAS protein.

66. (New) The wheat plant of claim 22, said plant comprising two *Triticum aestivum* IMI nucleic acids.

67. (New) The wheat plant of claim 22, comprising an Imi1 nucleic acid and an Imi3 nucleic acid.

68. (New) The wheat plant of claim 22, said plant comprising three *Triticum aestivum* IMI nucleic acids.

69. (New) The wheat plant of claim 22, wherein the plant is not transgenic.